Analysis of Unicorn Startups

Contents

1 Import Packages

```
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
from matplotlib.ticker import FuncFormatter
import seaborn as sns
```

2 Data Preparation

2.1 Load data

```
pd.set_option('display.max_columns', 50, 'display.width', 200)
df = pd.read_csv('input/Unicorns_Completed.csv')
```

2.2 Prepare data

```
df['Unicorn Date'] = pd.to_datetime(df['Unicorn Date'])
```

2.3 Preview data

```
df.head()
```

```
|    | Company    | Valuation ($B) | Total Equity Funding ($) | Unicorn Date | Date Founded
↪  | Years to Unicorn | Industry | Country            | City          | Select Investors |
↪  |
|---+-----------+---------------+-------------------------+-------------+----------------------+---
| 0 | SpaceX     |          350.0 |               9000000000 | Timestamp    | (2012-12-01
↪  00:00:00) |             2002 | 10y 3m    | Enterprise Tech    | United States |
↪  Hawthorne        | Opus Capital, RRE Ventures, Relay Ventures        |
| 1 | ByteDance |          300.0 |               8000000000 | Timestamp    | (2017-04-07
↪  00:00:00) |             2011 | 6y 3m     | Enterprise Tech    | China         | Beijing
↪  | Breyer Capital, Parkway VC, TIME Ventures         |
| 2 | OpenAI     |          157.0 |              18000000000 | Timestamp    | (2019-07-22
↪  00:00:00) |             2015 | 4y 6m     | Industrials        | United States | San
↪  Francisco    | Dynamo VC, Susa Ventures, Founders Fund           |
| 3 | Ant Group |          150.0 |              19000000000 | Timestamp    | (2017-01-01
↪  00:00:00) |             2014 | 3y        | Financial Services | China         | Hangzhou
↪  | Alibaba Group, CPP Investments, The Carlyle Group |
| 4 | Stripe     |           70.0 |               9000000000 | Timestamp    | (2014-01-23
↪  00:00:00) |             2009 | 5y        | Consumer & Retail  | United States | San
↪  Francisco    | Sequoia Capital China, ZhenFund, K2 Ventures      |
```

3 Time-Based Analysis

3.1 Number of Unicorns Created Over Time

1. Count Unicorns by Year

```
unicorn_count = df.groupby(df['Unicorn Date'].dt.year).size()
unicorn_count
```

2. Visualize the Trend

```
plt.figure(figsize=(12, 6))
plt.plot(unicorn_count.index, unicorn_count.values, marker='o')
plt.title('Number of Unicorns Created Over Time')
plt.xlabel('Year')
plt.ylabel('Number of Unicorns')
plt.xticks(unicorn_count.index, rotation=45)
plt.grid()
plt.show()
```

2007	1
2011	1
2012	4
2013	4
2014	9
2015	32
2016	17
2017	35
2018	83
2019	85
2020	91
2021	484
2022	252
2023	68
2024	78